

REMARKS

I. Status of Claims

By this Amendment, Applicants amend claims 1-6 and add new claims 7-9. Claims 1-9 are now pending in this application.

In the Office Action of March 10, 2004,¹ claims 1-3 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite; claims 4-6 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 5,940,452 to *Rich et al.* (“*Rich*”); and claims 1-3 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Rich* in view of the article entitled “Pilot Power Control and Service Coverage Support in CDMA Mobile Systems” by *Kim et al.* (“*Kim*”). Applicants address the rejections and new claims below.

II. Rejection of Claims 1-3 under 35 U.S.C. § 112, Second Paragraph

Claims 1-3 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for “failing to particularly point out and distinctly claim the subject matter” regarded as the invention. The Examiner stated that “it may not be clear from [independent claims 1 and 2] . . . what applicant means by ‘the original antenna’ . . .” (Office Action at 2). Claim 3 was rejected for depending on a rejected base claim. Although Applicants disagree with the Examiner, Applicants amend claims 1 and 2 to address the Examiner’s remarks. Applicants submit that claims 1 and 2, as amended, fully comply with 35 U.S.C. 112, second paragraph, and request that the rejection of these claims as well as claim 3 be withdrawn. Applicants further note that claims 3-6 have been amended to improve form and readability and that claims 1-6, as amended, are similar in scope to original claims 1-6.

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

III. Rejection of Claims 1-3 Based on *Rich* and *Kim*

Applicants traverse the rejection of claims 1-3 under 35 U.S.C. § 103(a) based on *Rich* and *Kim* for at least the following reasons.

In order to maintain a rejection under 35 U.S.C. § 103(a), the references used to make the rejection must qualify as prior art. Applicants submit that *Kim* does not qualify as prior art. The *Kim* reference is an article, published in May 1999. The application under examination, however, is entitled to the priority date of December 28, 1998, since this application claims priority to Japanese Patent Application No. 10-373382 filed on that day. *Kim*, thus, does not qualify as prior art against this application and cannot be used in combination with *Rich* to reject Applicants' claims. For at least this reason, Applicants request withdrawal of the rejection of claims 1-3 based on *Rich* and *Kim*.

To the extent the Examiner may allege that *Rich* alone renders claims 1-3 obvious, Applicants traverse such a basis for rejection. To establish *prima facie* obviousness under 35 U.S.C. § 103(a), three requirements must be met. First, the applied references, taken alone or in combination, must teach or suggest each and every element recited in the claims. *See* M.P.E.P. § 2143.03 (8th ed. 2001). Second, there must be some suggestion or motivation, either in the reference(s) or in the knowledge generally available to one of ordinary skill in the art, to combine or modify the reference(s) in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of these requirements must "be found in the prior art, and not be based on applicant's disclosure." M.P.E.P. § 2143 (8th ed. 2001).

Rich fails to teach or suggest at least the following features recited in claim 1, as currently presented:

handoff control means for switching the first antenna selected by the antenna selection means to the second antenna to verify whether a handoff is needed when a handoff condition is met in an incoming-call standby mode and then switching the second antenna to the first, originally-selected antenna to perform handoff processing again when the necessity of the handoff is verified.

In *Rich*'s system, antenna use corresponds to three "selected" states: only the first antenna, only the second antenna, and both the first and second antennas (col. 8, lines 1-3). *Rich*'s system changes the antenna in use to another antenna based on reception quality (*see, e.g.*, col. 13, lines 32-39), and it does not verify the necessity of performing an antenna handoff after switching an antenna currently selected to a remaining antenna. Although *Rich* discloses changing the antennas to the first selected state (FIG. 6, item 622), this merely refers to returning the selected state from the third state to the first state according to the changing order. *Rich* does not return the terminal to the state of using the antenna that was used when handoff became necessary. For example, if the reception quality remains undesirable after an antenna change from the "first selected state" to the "second selected state," *Rich*'s terminal simply changes the antenna state to the "third selected state" in order, not to the originally-selected state (i.e., the first state). *Rich* therefore fails to teach or suggest, for example, "switching the second antenna to the first, originally-selected antenna," as claimed.

Moreover, *Rich* does not refer to handover and fails to articulate whether a handover would be performed by reselecting the previously-used antenna, with the antenna currently in use, or by changing the antenna in use to another antenna.

For at least the foregoing reasons, *Rich* does not disclose each and every feature of claim

1. In addition, Applicants submit that a skilled artisan, considering *Rich*, and not having the benefit of Applicants' disclosure, would not have modified *Rich* in a manner resulting in

Applicants' claimed combination. Applicants therefore submit that a *prima facie* case of obviousness cannot be established based on *Rich*.

Independent claim 2, although of different scope, recites features similar to those of claim 1 discussed above. In particular, claim 2, as currently presented, recites, *inter alia*:

handoff control means for switching the first antenna selected by the antenna selection means to the second antenna to verify whether a handoff is needed when a handoff condition is met in a communications mode and then switching the second antenna to the first, originally-selected antenna to perform handoff processing again when the necessity of the handoff is verified.

For at least reasons similar to those presented above in connection with claim 1, the rejection of claim 2 should be withdrawn. The rejection of claim 3, which now depends from claim 2, should be withdrawn at least because of the dependence of that claim from claim 2. In sum, Applicants request withdrawal of the rejection of claims 1-3 based on *Rich* and *Kim*.

IV. Rejection of Claims 4-6 Based on *Rich*

Applicants traverse the rejection of claims 4-6 under 35 U.S.C. § 102(e) because *Rich* does not anticipate these claims. In order to properly anticipate Applicants' claimed invention under 35 U.S.C. § 102(e), each and every element of the claim at issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Further, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim[s]." See M.P.E.P. § 2131. Finally, "[t]he elements must be arranged as required by the claim." *Id.*

With regard to independent claim 4, *Rich* does not teach or suggest at least the following features:

reception means for converting a signal received by the second antenna into a first intermediate-frequency signal and then delaying the first intermediate-frequency signal by at least a reciprocal of a chip rate in the CDMA system or more,

synthesizing the delayed signal and a second intermediate-frequency signal into which a signal received by the first antenna is converted, and performing Rake reception using a result of the synthesis for demodulation.

Rich does not teach or suggest, for example, the “delaying” feature of claim 4. In *Rich*’s system, signals received by two antennas (114, 116) are inputted to a receiver (126) through a common line (145) before they are downconverted (*see, e.g.*, col. 5, lines 17-35; FIG. 1). In particular, a radio frequency signal or a combined radio frequency signal is inputted to the receiver. *Rich*’s system therefore cannot delay only one of the signals received by the antennas after they are downconverted into intermediate-frequencies, as recited in claim 4. *Rich* also fails to disclose “delaying the first intermediate-frequency signal by a reciprocal of a chip rate . . .,” as recited in claim 4. Additionally, *Rich* does not teach or suggest “reception means for . . . performing Rake reception using a result of the synthesis for demodulation,” as claimed. For at least these reasons, *Rich* fails to disclose the “reception means” recited in claim 4. Because *Rich* does not teach or suggest each and every feature of claim 4, as a matter of law, it cannot anticipate this claim and, as such, the rejection of this claim under 35 U.S.C. §102(e) should be withdrawn. The rejection of claims 5 and 6 should be withdrawn as well, at least because of the respective dependence of those claims from base claim 4. Applicants thus request withdrawal of the rejection of claims 4-6 under 35 U.S.C. § 102(e) and the timely allowance of these pending claims.

V. New Claims 7-9

New claims 7 and 8 depend from claim 1, and new claim 9 depends from claim 2. Applicants submit that these claims are allowable at least because of their dependence on claims 1 or 2, which are allowable for at least the reasons set forth above.

VI. Information Disclosure Statement filed July 8, 2002

Applicants submitted an Information Disclosure Statement on July 8, 2002, citing two Korean documents and a copy of the Korean Office Action on the PTO-1449 form. Applicants note that the Examiner has not indicated that the Korean Office Action was considered. Applicants request that the Examiner consider this document and indicate that it was considered by making an appropriate notation on the PTO-1449 form.

VII. Conclusion


The claimed invention is neither anticipated nor rendered obvious in view of the references cited against this application. Applicants request the Examiner's reconsideration of the application in view of the foregoing, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: August 10, 2004

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